Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

Applicant/Contact name and address: **TOWN OF COLUMBUS**
P.O. BOX 549
COLUMBUS, MT 59019

1. *Type of action*: **APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 43QJ-30031066**

2. *Water source name*: **GROUNDWATER**

3. *Location affected by project*: **SECTIONS 20, 21, W2 22, SE22, 27, 28, N2 34, T2S, R20E in STILLWATER COUNTY.**

4. *Narrative summary of the proposed project, purpose, action to be taken, and benefits*:
This project will pump supplemental water from a production well for municipal use in the Town of Columbus, MT. The applicant is proposing to supply a sufficient volume of water for the Town of Columbus to account for projected population needs of the next 18 years. The proposed production well will supply water to the city water system. This application is for a 360 gpm up to 334 acre-feet/year well in the NWSESE of Sec. 21, T2S R20E, in Stillwater County. The application will provide municipal water in sections: 20, 21, W2 22, SE22, 27, 28, N2 34, T2S, R20E in Stillwater County, from January 1st to December 31st.

The DNRC will issue a provisional water use permit if all criteria for issuance under §§ 85-2-311, MCA are met.

5. *Agencies consulted during preparation of the Environmental Assessment:*
(include agencies with overlapping jurisdiction)
Montana Natural Heritage Program
Montana Historic Preservation Office
Montana Department of Fish Wildlife & Parks (MFWP)
Montana Department of Environmental Quality (MDEQ)
Stillwater County Planning Office
James Heffner, DNRC Hydrogeologist

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity **-** *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: **No significant impact.**
This application will utilize groundwater at a rate of 360 gpm.

Water quality **-** *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: **No significant impact.**
Groundwater source, see below.

Groundwater **-** *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: **No significant impact.**
This application requests 360 GPM of groundwater from a well 63-feet deep for municipal use. The Yellowstone River was determined by the applicant to be the sole source of surface water potentially affected by this well. This is further supported by the Departments' hydrogeologist. The applicant applied the Colorado and Jenkins Models to the aquifer in order to assess potential negative impacts to surface waters on the Yellowstone River. The maximum depletion rate from the Yellowstone River was calculated at 0.48 cfs projected over a 26-year period. The applicant states there would be no influence on the Columbus Water Users Canal due to the canal being out of the calculated zone of influence and contained within a water confining region of geology. Supporting fluvial and geologic information is included, with a map (Figure 3 in the revised material of the application) and discussion of aquifer bounds and aquitard layers in reference to the Columbus Water Users Canal.

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Determination: **No significant impact.**
The groundwater well was completed in 10/25/2007 by O'Keefe Drilling Co., Butte, MT. A 30 HP pump is used to divert water from the well .Water is then conveyed directly to an above-ground water storage tank. The project will be utilizing groundwater, therefore, there are no known significant impacts to channels, barriers, dams, riparian areas or modifications in flow.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

Determination: **The Montana Natural Heritage Program has identified three species of concern within this proposed project area: the Bald Eagle (*Haliaeetus* leucocephalus), Greater Short-horned Lizard (*Phrynosoma* hernandesi), and Common Sagebrush Lizard (*Sceloporus graciosus*). It is not expected that this proposed well project will adversely impact any of these species as it is contained within an already fully developed area of the community.**

Wetlands *- Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: **No significant impact.**
No wetlands claimed in the project area.

Ponds *- For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: **No significant impact.**
No ponds claimed in the project area.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE *- Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: **No significant impact.**

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS *- Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: **No significant impact.**
There will be minimal soil disturbance during construction of this proposed project and there will be little likelihood for spread or establishment of noxious weeds. The landowner is responsible for controlling any establishment of noxious weed as a result of disturbance.

AIR QUALITY *- Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: **No significant impact.**
No deterioration of air quality or adverse effects on vegetation due to increased air pollutants from this project are expected.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: **No significant impact.**
The State of Montana Historic Preservation Office (SHPO), did not identify any historic or archeological sites of record in the proposed project area. However, it was mentioned, "there have been a few previously recorded sites within the designated search locales."... and "a few previously conducted cultural resource inventories done in the areas." The only stipulation from SHPO is; any structure over fifty years old to be altered, is recorded by SHPO and evaluated for historic preservation listing. This proposed use of water is not expected to have any significant impact on historical or archeological sites in the area.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: **No significant impact.**
There should be no significant impacts on other environmental resources of land, energy, and water from this proposed use.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: **No significant impact.**
This proposed use is not inconsistent with any locally adopted environmental plans and goals for Stillwater County.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: **No significant impact.**
There should be no significant impacts on recreational or wilderness activities from this proposed use.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: **No significant impact.**
There should be no significant impact on human health from this proposed use.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No _**X**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: **No significant impact**.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) Cultural uniqueness and diversity? **No significant impact.**

(*b) Local and state tax base and tax revenues?* **No significant impact.**

(c) Existing land uses? **No significant impact.**

(*d) Quantity and distribution of employment?* **No significant impact.**

(e) Distribution and density of population and housing? **No significant impact.**

(f) Demands for government services? **No significant impact.**

(g) Industrial and commercial activity? **No significant impact.**

(h) Utilities? **No significant impact.**

(i) Transportation? **No significant impact.**

(j) *Safety?* **No significant impact.**

(k) Other appropriate social and economic circumstances? **No significant impact.**

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: **No significant impact.**

Cumulative Impacts: **No significant impact.**

3. *Describe any mitigation/stipulation measures:* **The applicant is aware that water production will cease to allow the well a recovery period if a situation arises where the well is used for maximum production until depletion. The example provided by the applicant was; if the well was continually pumped at 360 GPM for 55-days it would reach the well-screen and require time to recharge.**

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:* **The "no action" alternative would mean that the Town of Columbus would not have sufficient water for future population growth and the Town's economy could be negatively affected.**

PART III. Conclusion

1. *Preferred Alternative:* **The preferred alternative would be to allow use of the well with the condition that there will be no adverse impacts to any senior water rights.**

2. *Comments and Responses:* **None to report.**

3. *Finding:*
   *Yes___ No_**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?* **No EIS is required.**

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: **No significant environmental impacts were identified, therefore no EIS is required.**

Name of person(s) responsible for preparation of EA:

Name: **Mark V Corrao**
Title: **Water Resources Specialist**
Date: **July 24, 2008**